



10-27-06

IFW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 06-451)

In re Application of:

Tang, Christoph Marcel et al.

Serial No.: 10/584,367 ✓

Filing Date: June 23, 2006

I.A. Filing Date: December 23, 2004

For: Identification of Antigenically Important
Neisseria Antigens by Screening Insertional
Mutant Libraries with Antiserum

Group Art Unit: TBA

Confirmation No. TBA

Examiner: TBA

TRANSMITTAL LETTER


Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

In regard to the above-identified patent application:

1. We are transmitting herewith the attached:
 - a) Information Disclosure Statement;
 - b) PTO Form 1449;
 - c) Copies of 36 References;
 - d) International Search Report; and
 - e) Return Postcard
2. No fee is due at this time.
3. GENERAL AUTHORIZATION: Please charge any additional fees or credit overpayments to the Deposit Account No. 13-2490. A duplicate copy of this sheet is enclosed.
4. CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this Transmittal Letter and papers, as described in paragraph 1 hereinabove, are being deposited with the United States Postal Service, with sufficient postage as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 20, 2005.

Respectfully submitted,

Date: October 26, 2006


Steven G. Sarussi
Reg. No. 32,784



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 06-451)

In re Application of:)	
Tang, Christoph Marcel et al.)	
)	Group Art Unit: TBA
Serial No.: 10/584,367)	
)	Confirmation No. TBA
Filing Date: June 23, 2006)	
I.A. Filing Date: December 23, 2004)	Examiner: TBA
)	
For: Identification of Antigenically Important)	
Neisseria Antigens by Screening Insertional)	
Mutant Libraries with Antiserum)	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Copies of the references 1-15 cited below are enclosed. These references are also listed on the enclosed PTO Form 1449.

In the judgment of the undersigned, portions of the listed references may be material to the Examiner's consideration of the presently pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative relevance between references, whether cited in this or prior statements. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or Section 103.

United States Patents

None

Foreign Documents

1. EP Patent Application No. EP 0109942, published May 30, 1984.
2. EP Patent Application No. EP 0180564, published May 7, 1986.
3. EP Patent Application No. EP 0231039, published August 5, 1987.
4. United Kingdom Patent Application No. GB A2 189141, published October 21, 1987.
5. PCT Patent Application No. WO 88/07378, published November 15, 2001.
6. PCT Patent Application No. WO 01/85772 A, published October 6, 1988.

Other Documents

7. Albus et al., 1999, "Virulence of *Staphylococcus aureus* mutants altered in type 5 capsule production", *Infect. Immun.* 59: 1008-1014.
8. Anderson et al., 1994, "Safety and immunogenicity of meningococcal A and C polysaccharide conjugate vaccine in adults", *Infect. Immun.* 62: 3391-3395.
9. Bagshawe et al., 1987, "Antibody directed enzymes revive anti-cancer prodrugs concept", *Br J. Cancer* 56: 531-532.
10. Bagshawe et al., 1988, "A cytotoxic agent can be generated selectively at cancer sites", *Br J. Cancer* 58: 700-703.
11. Bart et al., 1999, "Antigenic variation of the class 1 outer membrane protein in hyperendemic *Neisseria meningitidis* strains in the Netherlands", *Infect. Immun.* 67: 3832-3846.
12. Camilli et al., 1990, "Insertional mutagenesis of *Listeria monocytogenes* with a novel Tn917 derivative that allows direct cloning of DNA flanking transposon insertions", *J. Bacteriol.* 172: 3738-3744.
13. Cheung et al., 1992, "Regulation of exoprotein expression in *Staphylococcus aureus* by a locus (*sar*) distinct from *agr*", *Proc. Natl. Acad. Sci. USA* 89: 6462-6466.
14. Danve et al., 1993, "Transferrin-binding proteins isolated from *Neisseria meningitidis* elicit protective and bactericidal antibodies in laboratory animals", *Vaccine* 11: 1214-1220.
15. Feavers et al., 2000, "ABC of meningococcal diversity", *Nature* 404: 451-452.
16. Finne et al., 1983, "Antigenic similarities between brain components and bacteria causing meningitis. Implications for vaccine development and pathogenesis", *Lancet* 2: 355-357.
17. Geoffroy et al., 2003, "Large scale analysis of the meningococcus genome by gene disruption: Resistance to complement-mediated lysis", *Genome Research* 13: 391-398.
18. Goldschneider et al., 1969, "Human immunity to the meningococcus", *J. Exp. Med.* 129: 1307-1326.

19. Jacobs et al., 2003, "Comprehensive transposon mutant library of *Pseudomonas aeruginosa*", *Proc. Natl. Acad. Sci. USA* 100: 14339-14344.
20. Kizil et al., 1999, "Identification and characterization of TspA, a major CD4+ T cell and B cell stimulating *Neisseria*-specific antigen", *Infect Immun.* 67: 3533-3541.
21. Leach et al., 1997, "Induction of immunologic memory in Gambian children by vaccination in infancy with a group A plus group C meningococcal polysaccharide-protein conjugate vaccine", *J. Infect Dis.* 175: 200-204.
22. Liebermann et al., 1996, "Safety and immunogenicity of a serogroups A/C *Neisseria meningitidis* oligosaccharide-protein conjugate vaccine in young children", *J. American Med. Assoc.* 275: 1499-1503.
23. Lu et al., 1994, "Tagged mutations of the Tox1 locus of *Cochliobolus heterostrophus* by restriction enzyme-mediated integration", *Proc. Natl. Acad. Sci. USA* 91: 12649-12653.
24. Makela et al., 2002, "Evolution of conjugate vaccines", *Expert Rev. Vaccines* 1: 399-410.
25. Morrison et al., 1984, "Isolation of transformation deficient *Streptococcus pneumoniae* mutants defective in control of competence, using insertion-duplication mutagenesis with the erythromycin resistance determinant of pAMB1", *J. Bacteriology* 159: 870-876.
26. Schiestl & Petes, 1991, "Integration of DNA fragments by illegitimate recombination in *Saccharomyces cerevisiae*", *Proc. Natl. Acad. Sci. USA* 88: 7585-7589.
27. Schiestl et al., 1994, "Effect of mutations in genes affecting homologous recombination on restriction enzyme mediated and illegitimate recombination in *Saccharomyces cerevisiae*", *Mol. Cell Biol.* 14: 4493-4500.
28. Senter et al., 1988, "Anti-tumor effects of antibody – alkaline phosphatase conjugates in combination with etoposide phosphate", *Proc. Natl. Acad. Sci. USA* 85: 4842-4846.
29. Smith et al., 1994, "Virulence of *Aspergillus fumigatus* double mutants lacking restrictocin and an alkaline protease in a low-dose model of invasive pulmonary aspergillosis", *Infect. Immunol.* 62: 5247-5254.
30. Sun Y-H et al., 2000, "Functional genomics of *Neisseria Meningitidis* pathogenesis", *Nature Med.* 6: 1269-1273.
31. Tettelin et al., 2000, "Complete genome sequence of *Neisseria meningitidis* serogroup B strain MC58", *Science* 287: 1809-1815.
32. Thompson et al., 1994, "CLUSTAL W: improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice", *Nucleic Acids Res* 22: 4673-4680.
33. Vermont et al., 2002, "*Neisseria Meningitidis* serogroup B: laboratory correlates of protection", *FEMS Immunology and Medical Microbiology* 34: 89-96.
34. Villafane et al., 1987, "Replication control genes of plasmid pE194", *J. Bacteriol.* 169: 4822-4829.

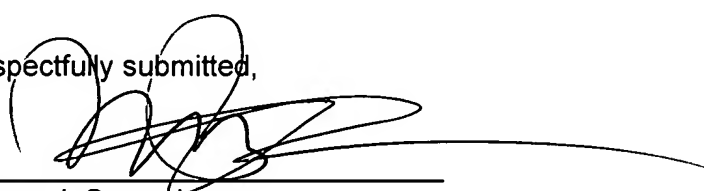
35. Walport, 2001, "Complement. Second of two parts", N. Engl. J. Med. 344: 1140-1144.
36. Walport, 2001, "Complement. First of two parts", N. Engl. J. Med. 344: 1058-1066.
37. International Search Report for PCT application (PCT/GB2004/005441).


In accordance with MPEP Sections 609 and 707.05(b), it is requested the document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

Respectfully submitted,

Date: October 26, 2006

By:


Steven J. Sarussi
Reg. No. 32,784
McDonnell, Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, 31st Floor
Chicago, IL 60606
312 913-0001

FORM PTO-1449 (Rev. 2-32)  INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 06-451	Serial No. 10/584367
		Applicant: Tang, Christoph Marcel et al.	
		Filing Date: June 23, 2006 Int'l Filing Date: December 23, 2004	Group: Not Assigned

U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	None					

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	1	EP 0109942	May 30, 1984	EP				
	2	EP 0180564	May 7, 1986	EP				
	3	EP 0231039	August 5, 1987	EP				
	4	GB A2 189141	October 21, 1987	GB				

EXAMINER	DATE CONSIDERED
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 06-451	Serial No. 10/584367
	INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			
			Applicant: Tang, Christoph Marcel et al.	
			Filing Date: June 23, 2006 Int'l Filing Date: December 23, 2004	Group: Not Assigned

	5	WO 88/07378	November 15, 2001	WO				
	6	WO 01/85772 A	October 6, 1988	WO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

7	Albus et al., 1999, "Virulence of Staphylococcus aureus mutants altered in type 5 capsule production", Infect. Immun. 59: 1008-1014
8	Anderson et al., 1994, "Safety and immunogenicity of meningococcal A and C polysaccharide conjugate vaccine in adults", Infect. Immun. 62: 3391-3395
9	Bagshawe et al., 1987, "Antibody directed enzymes revive anti-cancer prodrugs concept", Br J. Cancer 56: 531-532
10	Bagshawe et al., 1988, "A cytotoxic agent can be generated selectively at cancer sites", Br J. Cancer 58: 700-703
11	Bart et al., 1999, "Antigenic variation of the class 1 outer membrane protein in hyperendemic Nisseria meningitidis strains in the Netherlands", Infect. Immun. 67: 3832-3846
12	Camilli et al., 1990, "Insertional mutagenesis of Listeria monocytogenes with a novel Tn917 derivative that allows direct cloning of DNA flanking transposon insertions", J. Bacteriol. 172: 3738-3744
13	Cheung et al., 1992, "Regulation of exoprotein expression in Staphylococcus aureus by a locus (sar) distinct from agr", Proc. Natl. Acad. Sci. USA 89: 6462-6466

EXAMINER	DATE CONSIDERED
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Atty. Docket No. 06-451	Serial No. 10/584367
	Applicant: Tang, Christoph Marcel et al.	
	Filing Date: June 23, 2006 Int'l Filing Date: December 23, 2004	Group: Not Assigned

14	Danve et al., 1993, "Transferrin-binding proteins isolated from Neisseria meningitidis elicit protective and bactericidal antibodies in laboratory animals", Vaccine 11: 1214-1220
15	Feavers et al., 2000, "ABC of meningococcal diversity", Nature 404: 451-452
16	Finne et al., 1983, "Antigenic similarities between brain components and bacteria causing meningitis. Implications for vaccine development and pathogenesis", Lancet 2: 355-357
17	Geoffroy et al., 2003, "Large scale analysis of the meningococcus genome by gene disruption: Resistance to complement-mediated lysis", Genome Research 13: 391-398
18	Goldschneider et al., 1969, "Human immunity to the meningococcus", J. Exp. Med. 129: 1307-1326
19	Jacobs et al., 2003, "Comprehensive transposon mutant library of Pseudomonas aeruginosa", Proc. Natl. Acad. Sci. USA 100: 14339-14344
20	Kizil et al., 1999, "Identification and characterization of TspA, a major CD4+ T cell and B cell stimulating Neisseria-specific antigen", Infect Immun. 67: 3533-3541
21	Leach et al., 1997, "Induction of immunologic memory in Gambian children by vaccination in infancy with a group A plus group C meningococcal polysaccharide-protein conjugate vaccine", J. Infect Dis. 175: 200-204
22	Liebermann et al., 1996, "Safety and immunogenicity of a serogroups A/C Neisseria meningitidis oligosaccharide-protein conjugate vaccine in young children", J. American Med. Assoc. 275: 1499-1503
23	Lu et al., 1994, "Tagged mutations of the Tox1 locus of Cochliobolus heterostrophus by restriction enzyme-mediated integration", Proc. Natl. Acad. Sci. USA 91: 12649-12653
24	Makela et al., 2002, "Evolution of conjugate vaccines", Expert Rev. Vaccines 1: 399-410

EXAMINER	DATE CONSIDERED
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 06-451	Serial No. 10/584367
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			
		Applicant: Tang, Christoph Marcel et al.	
		Filing Date: June 23, 2006 Int'l Filing Date: December 23, 2004	Group: Not Assigned

25	Morrison et al., 1984, "Isolation of transformation deficient Streptococcus pneumoniae mutants defective in control of competence, using insertion-duplication mutagenesis with the erythromycin resistance determinant of pAMB1", J. Bacteriology 159: 870-876
26	Schiestl & Petes, 1991, "Integration of DNA fragments by illegitimate recombination in Saccharomyces cerevisiae", Proc. Natl. Acad. Sci. USA 88: 7585-7589
27	Schiestl et al., 1994, "Effect of mutations in genes affecting homologous recombination on restriction enzyme mediated and illegitimate recombination in Saccharomyces cerevisiae", Mol. Cell Biol. 14: 4493-4500
28	Senter et al., 1988, "Anti-tumor effects of antibody – alkaline phosphatase conjugates in combination with etoposide phosphate", Proc. Natl. Acad. Sci. USA 85: 4842-4846
29	Smith et al., 1994, "Virulence of Aspergillus fumigatus double mutants lacking restrictocin and an alkaline protease in a low-dose model of invasive pulmonary aspergillosis", Infect. Immunol. 62: 5247-5254
30	Sun Y-H et al., 2000, "Functional genomics of Neisseria Meningitidis pathogenesis", Nature Med. 6: 1269-1273
31	Tettelin et al., 2000, "Complete genome sequence of Neisseria meningitidis serogroup B strain MC58", Science 287: 1809-1815
32	Thompson et al., 1994, "CLUSTAL W: improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice", Nucleic Acids Res 22: 4673-4680
33	Vermont et al., 2002, "Neisseria Meningitidis serogroup B: laboratory correlates of protection", FEMS Immunology and Medical Microbiology 34: 89-96

EXAMINER	DATE CONSIDERED
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 06-451	Serial No. 10/584367
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			
		Applicant: Tang, Christoph Marcel et al.	
		Filing Date: June 23, 2006 Int'l Filing Date: December 23, 2004	Group: Not Assigned

34	Villafane et al., 1987, "Replication control genes of plasmid pE194", J. Bacteriol. 169: 4822-4829
35	Walport, 2001, "Complement. Second of two parts", N. Engl. J. Med. 344: 1140-1144
36	Walport, 2001, "Complement. First of two parts", N. Engl. J. Med. 344: 1058-1066
37	International Search Report for PCT application PCT/GB2004/005441

EXAMINER	DATE CONSIDERED
-----------------	------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.